

**ROTARY ELECTRIC MOTOR HAVING AT LEAST THREE AXIALLY
ALIGNED STATOR POLES AND/OR ROTOR POLES**

Abstract of the Disclosure

A rotary electric motor has a stator with a plurality of separate and ferromagnetically isolated electromagnet core segments disposed coaxially about an axis of rotation. The core segments are supported by a non-ferromagnetic structure. Each core segment has at least three poles aligned in

5 a direction parallel to the axis. Windings are formed on portions linking the poles so that, when energized, the center pole forms a magnetic polarity opposite to the magnetic polarity of the other poles. The rotor comprises a plurality of axial rows of permanent magnets disposed circumferentially along the air gap. Each axial row of rotor magnets comprises a center permanent

10 magnet of one magnetic polarity and, at each axial side thereof, a permanent magnet of a magnetic polarity opposite to the polarity of the center magnet.